WHAT IS CLAIMED IS:

A vector for introducing a gene into a plant, which comprises

a desired gene, and

a plant hormone signal transduction gene selectable marker gene.

The vector according to claim 1, which further contains a removable DNA element, wherein the selectable marker gene is positioned such that it behaves integrally with the removable DNA element, and wherein the desired gene is positioned such that it does not behave integrally with the removable DNA element.

- The vector according to claim 2, wherein the selectable marker gene is present within the removable DNA element.
- 4. The vector according to claim 1, further contains a plant hormone synthesis gene together with the plant hormone signal transduction gene selectable marker genes.

- 5. The vector according to claim 1, wherein the plant hormone signal transduction gene is a cytokinin signal transduction gene.
- 6. The vector according to claim 5, wherein the cytokinin signal transduction gene is the CKI1 gene derived from Arabidopsis thaliana.
- 7. The vector according to claim 4, wherein the plant hormone synthesis gene is a cytokinin synthesis gene.
- 8. The vector according to claim 7, wherein the cytokinin synthesis gene is the *ipt* (isopentenyl transferase) gene which is present on the T-DNA of Agrobacterium tumefaciens.
- 9. The vector according to claim 2, wherein the removable DNA element is derived from a site-specific recombination system.

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